UNITED COOPERATIVE SERVICES

Application for Operation of Member-Owned Generation

This application should be completed as soon as possible and returned to the Cooperative Member Service representative in order to begin processing the request. See *Distributed Generation Procedures and Guidelines Manual for Members* for additional information.

INFORMATION: *This application is used by the Cooperative to determine the required equipment configuration for the Applicant interface. Every effort should be made to supply as much information as possible.*

PART 1
OWNER/APPLICANT INFORMATION

Company: _____

Mailing Address: _____

City: _____ County: _____ State: _____Zip Code: _____

Phone Number: _____ Representative:

PROJECT DESIGN/ENGINEERING (as applicable)

Company: _____

Mailing Address: _____

City: _____ County: _____ State: _____Zip Code: _____

Phone Number: _____ Representative: _____

ELECTRICAL CONTRACTOR (as applicable)

Company: _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip Code: _____

Phone Number: _____ Representative: _____

TYPE OF GENERATOR (as applicable)

Photovoltaic _____ Wind _____ Microturbine _____

Diesel Engine _____ Gas Engine _____ Turbine Other _____

ESTIMATED LOAD INFORMATION

The following information will be used to help properly design the Cooperative member interconnection. This information is not intended as a commitment or contract for billing purposes.

Total Site Load _____(kW) Total DG Output_____ (kW)

Mode of Operation (check all that apply)

Isolated_____ Paralleling_____ Power Export _____

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including when you plan to operate the generator.

_____
_____
_____
_____
_____
_____
_____
_____
_____

PART 2

(Complete all applicable items. Copy this page as required for additional generators.)

SYNCHRONOUS GENERATOR DATA

Unit Number: _____ Total number of units with listed specifications on site: _____
Manufacturer: _____
Type: _____ Date of manufacture: _____
Serial Number (each): _____
Phases: Single ____Three ___ R.P.M.: _____ Frequency (Hz): _____
Rated Output (for one unit): _____ Kilowatt _____ Kilovolt-Ampere_____
Rated Power Factor (%): _____ Rated Voltage (Volts) _____ Rated Amperes: _____
Field Volts: _____ Field Amps: _____ Motoring power (kW):
_____
Synchronous Reactance (X'd): _____ % on _____ KVA base
Transient Reactance (X'd): _____ % on _____ KVA base
Subtransient Reactance (X'd): _____ % on _____ KVA base
Negative Sequence Reactance (Xs): _____ % on _____ KVA base
Zero Sequence Reactance (Xo): _____% on _____ KVA base
Neutral Grounding Resistor (if applicable): _____
_____
I_2^2t of K (heating time constant): _____
Additional Information: _____
_____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr): _____ ohms Stator Resistance (Rs): _____ ohms

Rotor Reactance (Xr): _____ ohms Stator Reactance (Xs): _____ ohms
Magnetizing Reactance (Xm): _____ ohms Short Circuit Reactance (Xd"): _____ ohms
Design letter: _____ Frame Size: _____
Exciting Current: _____ Temp Rise (deg Cº): _____
Reactive Power Required: _____ Vars (no load), Vars _____ (full load)
Additional Information: _____
_____

PRIME MOVER (Complete all applicable items)
Unit Number: _____ Type: _____
Manufacturer: _____
Serial Number: _____ Date of manufacturer: _____
H.P. Rates: _____ H.P. Max.: _____ Inertia Constant: _____ lb.-ft^2
Energy Source (hydro, steam, wind, etc.) _____
_____
_____

GENERATOR TRANSFORMER (Complete all applicable items)
TRANSFORMER (between generator and utility system)
Generator unit number: _____ Date of manufacturer: _____
Manufacturer: _____
Serial Number: _____
High Voltage: ____ KV, Connection: delta wye, Neutral solidly grounded? _____
Low Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded? _____
Transformer Impedance (Z): _____ % on _____ KVA base
Transformer Resistance (R): _____ % on _____ KVA base
Transformer Reactance (X): _____ % on _____ KVA base
Neutral Grounding Resistor (if applicable: _____
_____

INVERTER DATA (if applicable)
Manufacturer: _____ Model: _____
Rate Power Factor (%): ___ Rated Voltage (Volts): ___ Rated Amperes: _____
Inverter Type (ferroresonant, step, pulse-width modulation, etc.): _____
Type commutation: forced line
Harmonic Distortion: Maximum Single Harmonic (%) _____
Maximum Total Harmonic (%) _____
Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

POWER CIRCUIT BREAKER (if applicable)
Manufacturer: _____ Model: _____
Rated Voltage (*kilovolts*): _____ Rated ampacity (*Amperes*) _____
Interrupting rating (*Amperes*): _____ BIL Rating _____
Interrupting medium / insulating medium (ex. Vacuum, gas, oil) _____/_____
Control Voltage (Closing): ___ (Volts) AC DC
Control Voltage (Tripping): ___ (Volts) AC DC Battery Charged Capacitor
Close energy: Spring Motor Hydraulic Pneumatic Other: _____

Trip energy: Spring Motor Hydraulic Pneumatic Other: _____
Bushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: _____
Multi Ratio? No Yes: (available taps) _____

ADDITIONAL INFORMATION

In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment (generators, transformers, inverters, circuit breakers, protective relays, etc.), specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection.

SIGN OFF AREA

The applicant agrees to provide the Cooperative with any additional information requested by the Cooperative to assist in the review of this Application required to complete the interconnection. The applicant shall operate his equipment within the guidelines set forth by the Cooperative.

_____

Applicant Date

UNITED COOPERATIVE SERVICES CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact:	Cooperative Planning, DG Division
Address:	P.O. Box 16 Cleburne, Texas 76033
Phone:	817-556-4016
Fax:	817-556-4012
Web site:	www.united-cs.com